

REMARKS

This application has been reviewed in light of the Office Action dated March 9, 2006. Claims 1-16 are presented for examination. Claims 1-3 and 15 are in independent form. Favorable reconsideration is requested. Although no amendments have been made herein, a listing of the claims is presented above for the Examiner's convenience.

Claims 15 and 16 have been allowed and Claims 4-7, 9, and 11-14 have been indicated as allowable if rewritten so as not to depend from a rejected claim, and with no change in scope. The latter claims have not been so rewritten because, for the reasons given below, their base claim is believed to be allowable.

Claims 1-3 and 10 were rejected under 35 U.S.C. § 103(a) as obvious over U.S. Patent Application Publication No. 2005/0005692 ("Giustino") in view of U.S. Patent Appln. No. 2004/0036590 ("Elsner"). Claim 8 was rejected as obvious over Giustino in view of Elsner and U.S. Patent No. 6,763,288 ("Caretta").

Generally speaking, Claim 1 is directed to a method in which a measurement is made of the extension or contraction between two points (e.g., A₁ and A₂) at a first azimuth position of the tire and another measurement is made between these same points at a second azimuth position of the tire with respect to a contact area (see, e.g., Fig. 2).

Claim 1 recites, *inter alia*:

(1) measurements of circumferential extension or contraction are obtained between at least a pair of fixed points positioned at a same radius and being separated in azimuth in at least one sidewall of the tire;

(2) the measurements (i.e., the measurements of extension or contraction between the pair of fixed points) are made at two predetermined azimuth positions of the tire that are separated in azimuth from the center of the contact area; and

(3) the characteristic is calculated from these measurements.

It is fundamental that in order to establish *prima facie* obviousness, three requirements must be met:

First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations.

M.P.E.P. § 2143.

The Office Action states that Giustino discloses a method including the steps of “obtaining at least two measurements of extension or contraction between at least a pair of fixed points in at least one sidewall of the tire . . . and calculating said characteristic from said at least two measurements.” (Office Action at page 2). The Office Action acknowledges Giustino’s sensors do not happen to be “at a same radius and being separated in azimuth,” and furthermore Giustino does not disclose “the at least two measurements being made at two predetermined azimuth positions of the tire that are separated in azimuth from the center of the contact area.” (Office Action at page 3).

The Examiner turns to Elsner, which purportedly discloses the features missing from Giustino:

Elsner et al. teach a sensor system for detecting variables to be measured on a rotating tire, wherein at least two sensors are positioned in the tire’s sidewall at a same radius, being

separated in azimuth and at two predetermined azimuth positions (33, a, c) of the tire that are separated in azimuth from the center of the contact area.

(Office Action at page 3)(emphasis added).

The analysis of the claim presented in the Office Action seems to arbitrarily dissect the claim into phrases that lack proper context, and thus, this analysis does not properly consider the invention as a whole.¹ For example, the Examiner seems to interpret the claim phrase: “at two predetermined azimuth positions of the tire that are separated in azimuth from the center of the contact area” as defining the position of the fixed points (i.e., the sensors) on the tire, rather than defining the azimuth positions of the tire at which the measurements are made, as actually recited in Claim 1. By contrast, as discussed in the previous response, Elsner relies on a single measurement made at the center of the contact area (see Elsner at para. 73).

Thus, Giustino and Elsner, no matter how they hypothetically may be combined, do not teach or suggest obtaining at least two measurements of circumferential extension or contraction between at least a pair of fixed points positioned at a same radius and being separated in azimuth in at least one sidewall of the tire, the at least two measurements being made at two predetermined azimuth positions of the tire that are separated in azimuth from the center of the contact area, as recited in Claim 1.

¹ “[W]hen evaluating the scope of a claim, every limitation in the claim must be considered. Office personnel may not dissect a claimed invention into discrete elements and then evaluate the elements in isolation. Instead, the claim as a whole must be considered.” M.P.E.P. 2106(II)(citing *Diamond v. Diehr*, 450 U.S. at 188-89, 209 USPQ at 9).

The Examiner states that one would have been motivated to combine Elsner's circumferentially arrayed sensors into Giustino's system for measuring sidewall torsion "in order to provide a sensor system to detect dimensional variables whose values are not uniform along the angular direction through the tire." (Office Action at page 3). However, Giustino is concerned with predicting forces acting on the tire by measuring sidewall torsion, rather than measuring tangential and radial forces. Thus, one having the teachings of Giustino would have had no reason to turn to Elsner for sensors that measure tangential and radial forces and vice versa.

Moreover, the Examiner has not provided any support for the assertion that the sidewall torsion measured by Giustino is a variable "whose values are not uniform along the angular direction through the tire." Applicant believes that this assertion is entirely speculative and therefore does not amount to a "convincing line of reasoning."² To the extent that the Examiner is relying on common knowledge in the art or on a scientific theory for this assertion, it is respectfully traversed, and Applicant requests that the Examiner cite a reference in support of this position, in accordance with M.P.E.P. §§ 2144.02 and 2144.03.

² "To support the conclusion that the claimed invention is directed to obvious subject matter, either the references must expressly or impliedly suggest the claimed invention or the examiner must present a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references." M.P.E.P. §2142 (quoting *Ex parte Clapp*, 227 USPQ 972, 973 (Bd. Pat. App. & Inter. 1985).

Finally, the Examiner has not provided any basis in the prior art for a reasonable expectation of success in measuring sidewall torsion using a circumferential array of tangential and radial force sensors of the type disclosed in Elsner.³

Accordingly, it is believed that *prima facie* obviousness has not been established with respect to Claim 1 and withdrawal of the rejection thereof is respectfully requested.

Independent Claims 2, 3, and 15 recite features similar to those discussed above with respect to Claim 1 and therefore are also believed to be patentable over the combination of Giustino and Elsner for at least the reasons discussed above.

In addition, Applicant would like to reiterate that Claims 2 and 3 are also believed to be patentable due to their recitation that measurements are performed in both sidewalls. As noted previously, this arrangement is particularly advantageous in the case in which a camber angle is applied to the tire, as discussed in the specification, for example, at paragraph 33 (see Fig. 5). Nothing has been found or pointed out in the prior art that teaches or suggests making measurements in both sidewalls, in the manner recited in Claims 2 and 3.

The Examiner contends that the claimed inclusion of sensors in both sidewalls is “a mere duplication of essential working parts,” citing *St. Regis Paper Co. v. Bemis Co.* This contention is respectfully traversed. First, the specification is quite clear that the inclusion of sensors in both sidewalls is merely an exemplary embodiment, and the

³ The prior art can be modified or combined to reject claims as *prima facie* obvious as long as there is a reasonable expectation of success. MPEP 2143.02 (citing *In re Merck & Co., Inc.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986)).

Examiner has not provided any support for the conclusion that such additional sensors are “essential working parts.” Second, “[l]egal precedent can provide the rationale supporting obviousness only if the facts in the case are sufficiently similar to those in the application,” and the Examiner has not demonstrated any similarity between the facts of *St. Regis Paper Co.* and the facts of the present application. M.P.E.P. § 2144. Indeed, the Examiner has not discussed the facts of *St. Regis Paper Co.* at all. Furthermore, to the extent that *St. Regis Paper Co.* contradicts the standard of patentability enunciated by the Supreme Court in *Graham v. John Deere* (i.e., that all of the claimed features must be taught or suggested by the prior art), it is not good law.⁴

A review of the other art of record, including *Caretta*, has failed to reveal anything which, in Applicant’s opinion, would remedy the deficiencies of the art discussed above, as references against the independent claims herein. Those claims are therefore believed patentable over the art of record.

The other claims in this application are each dependent from one or another of the independent claims discussed above and are therefore believed patentable for the same reasons. Since each dependent claim is also deemed to define an additional aspect of the invention, however, the individual reconsideration of the patentability of each on its own merits is respectfully requested.

This Amendment After Final Action is believed clearly to place this application in condition for allowance and, therefore, its entry is believed proper under 37

⁴ “Patent examiners carry the responsibility of making sure that the standard of patentability enunciated by the Supreme Court and by the Congress is applied in each and every case.” M.P.E.P. § 2141 (citing *Graham v. John Deere*, 383 U.S. 1, 148 USPQ 459 (1966))(emphasis in original).

C.F.R. § 1.116. Accordingly, entry of this Amendment After Final Action, as an earnest effort to advance prosecution and reduce the number of issues, is respectfully requested. Should the Examiner believe that issues remain outstanding, it is respectfully requested that the Examiner contact Applicant's undersigned attorney in an effort to resolve such issues and advance the case to issue.

In view of the foregoing amendments and remarks, Applicant respectfully requests favorable reconsideration and early passage to issue of the present application.

Applicant's undersigned attorney may be reached in our New York office by telephone at (212) 218-2100. All correspondence should continue to be directed to our below listed address.

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